

Wisconsin Public Psychiatry Network Teleconference (WPPNT)

- This teleconference is brought to you by the Wisconsin Department of Health Services (DHS) Bureau of Prevention, Treatment, and Recovery and the University of Wisconsin-Madison, Department of Psychiatry.
- The Department of Health Services makes no representations or warranty as to the accuracy, reliability, timeliness, quality, suitability or completeness of or results of the materials in this presentation. Use of information contained in this presentation may require express authority from a third party.



WISCONSIN
DEPARTMENT OF HEALTH SERVICES



University Health Services

ADHD in Adults; Best Practices for Mental Health Providers

Eric Heiligenstein, M.D.
Director of Psychiatry
University Health Services
University of Wisconsin-Madison



WISCONSIN
DEPARTMENT OF HEALTH SERVICES



University Health Services

Objectives

- Discuss the current standard of care for diagnosis of adult ADHD.
- Understand the presentation and comorbidity of adult ADHD.
- Identify available psychostimulant treatments for adult ADHD and treatment options in patients with ADHD and Substance Use Disorders.
- Discuss the abuse and misuse of psychostimulants.



WISCONSIN
DEPARTMENT OF HEALTH SERVICES



University Health Services

Un-Objectives (what you won't learn)

- How to do a comprehensive evaluation for adult ADHD
- How to treat adults with ADHD and active substance use disorders
- How to manage complex pharmacological treatments for adult ADHD (drug combinations)

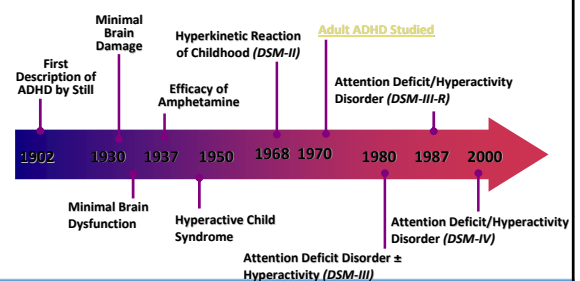


WISCONSIN
DEPARTMENT OF HEALTH SERVICES



University Health Services

ADHD: Timeline of Definitions



WISCONSIN
DEPARTMENT OF HEALTH SERVICES



University Health Services

Just because I have ADHD doesn't mean I'm a Squid

4.5 MILLION KIDS ARE

The ADHD Effect on Marriage
Understand and Rebuild Your Relationship in Six Steps

WISCONSIN University Health Services

Understanding Adult ADHD Neurologically

- A developmental disorder with delay in timing of normal brain changes
- ADHD symptoms are expressions of quantifiable brain pathology
- Lies at the extreme end of underlying cognitive impairments in executive functioning

WISCONSIN University Health Services

Executive functioning

Life

WISCONSIN University Health Services

Understanding Adult ADHD Clinically

- ADHD is chronic, with a substantial number of childhood-onset cases persisting into adulthood (65% or more)
- ADHD has characteristic comorbid disorders
- ADHD has characteristic functional impairments

WISCONSIN University Health Services

The Question of Diagnostic Validity

WISCONSIN University Health Services

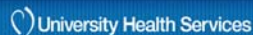
Best Practices in Diagnosis of Adult ADHD

- Using accepted guidelines (AAP, AACAP, AAAP)
- Recognizing that it is unusual for children/adolescents with behavioral/attention problems not to have been previously given a diagnosis of ADHD
- Strongly consider substance use, depression, and anxiety as alternative or co-occurring diagnoses
- Being able to say no

WISCONSIN University Health Services

Worst Practices in Diagnosis of Adult ADHD

- Accepting your patient's verbal report that they have been diagnosed in the past
- Using Internet checklists as sufficient for diagnosis
- Using an ADHD rating scale as the sole basis for diagnosis
- Accepting self report as the only source of information
- Thinking you can do a diagnostic evaluation in less than 2 hours



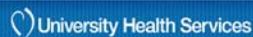
Standard Adult ADHD Assessment

- A diagnostic interview
 - The interview must contain self-report and third-party information
- Relevant medical and medication history
- Thorough academic/employment history
- Review of prior psychoeducational test reports
- Use of an objective ADHD rating scale or computerized test for ADHD (CPT)
- Neuropsychological or psycho educational assessment



Essential Criteria for Diagnosis

- Onset of disorder
- Consistency of symptoms
- Severity of symptoms
- Pervasiveness of impairment
- Verification of childhood ADHD symptoms



Essential Criteria for Diagnosis

- Onset of disorder
 - ADHD symptoms present in early years
 - Ages 4-12 years generally accepted
 - Adult diagnosis based predominantly on evidence of childhood history
 - Without a childhood history most adult ADHD can be ruled out



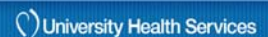
Essential Criteria for Diagnosis

- Consistency of symptoms
 - ADHD symptoms exhibited over time
 - Relative temporal stability of problems
 - Acute onset of symptoms does not happen
 - "Easy schools" don't exist for individuals with valid ADHD



Essential Criteria for Diagnosis

- Severity of symptoms
 - Compelling information that symptoms interfere with normal functioning
 - Simply identifying that someone is inattentive or impulsive is not enough to justify diagnosis



Essential Criteria for Diagnosis

- Pervasiveness of impairment
 - Impairment must be evident across more than one life setting
 - Executive function deficits are not selective
 - Impairment in academics only usually means a subtle LD



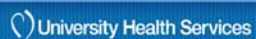
Essential Criteria for Diagnosis

- Verification of childhood ADHD symptoms
 - Difficult to justify diagnosis when symptoms suddenly arise after age 12 years
 - Exceptions for late onset
 - Unique mitigating factors
 - Evidence that symptoms caused poor adjustment

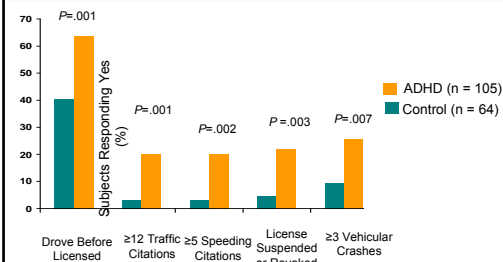


Clinical Impairments in Adults ADHD

- Murphy and Barkley (1996)
 - More psychological distress, health problems, job changes, marital problems
- Biederman, et al (1993)
 - Impairments at work, social/leisure, family, and relationships
- Able et al (2007)
 - Impairments at work, social/leisure, family, and lower QOL



Traffic Violations and MVA Among Young Adults With ADHD



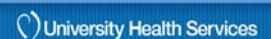
Barkley RA et al. J Int Neuropsychol Soc. 2002;8:655-672.

IS ADHD a Valid Diagnosis in the Presence of High IQ?

- High IQ adults have the same comorbidities and functional impairments as average IQ ADHD adults
- Despite high IQ, more likely to have needed tutoring
- Academics may not be impaired relative to general population BUT other functional domains are impaired
- High IQ needs to be documented by testing
 - » Antshel et al, 2008



The Question of Co-Occurring Conditions



Best Practices in Managing Co-Occurring Conditions in Adult ADHD

- Recognizing co-occurring conditions is the rule, not the exception
- Recognizing that each disorder usually requires specific treatment
- Obtaining Psychiatric consultation for assumption of care or guidance of treatment



University Health Services

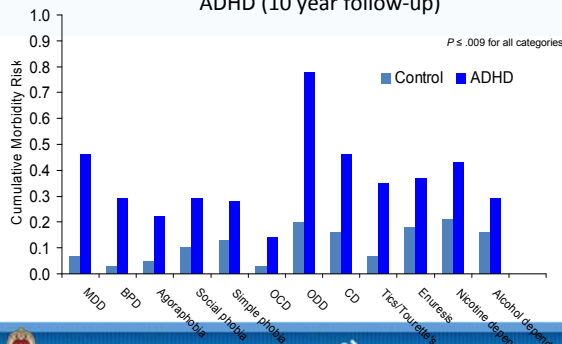
Worst Practices in Managing Co-Occurring Conditions in Adult ADHD

- Thinking that ADHD “explains everything”
- Believing your patient’s when they tell you that ADHD “explains everything”
- Not recognizing that co-occurring conditions undermine all ADHD pharmacological treatments
- Beginning polypharmacy because you don’t know what else to do



University Health Services

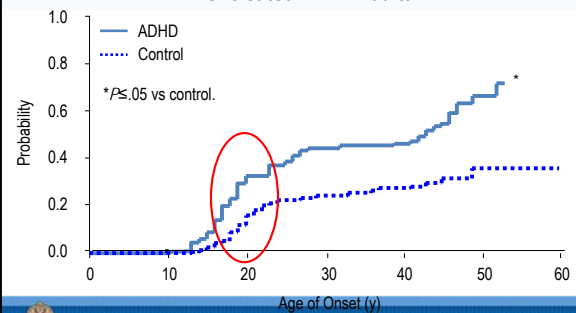
Cumulative Morbidity Risks for Psychiatric Disorders in ADHD (10 year follow-up)



University Health Services

Biederman J et al. Psychol Med. 2006;36:167-179

Onset of Substance Use Disorders in Untreated ADHD Adults



University Health Services

Adapted with permission from Wilens TE et al. J Nerv Ment Dis. 1997;185:475-482

Treatment Consideration in Patients with ADHD and Substance Use Disorders

- ADHD treatment can begin soon after SUD has been stabilized (at least 6 months abstinence)
- Medication should rarely be provided in isolation from treatment directed at SUD
- Nonstimulants are preferred treatment
- ADHD treatment may play a positive role in treating SUDs

Willens, et al, 195, 2005; Schubiner et al, 2002



University Health Services

The Question of Treatment: Schedule II or Not?



University Health Services

Best Practices in Pharmacological Treatment of Adult ADHD

- The “analgesic ladder” principal can be applied to ADHD treatment (psychotherapy, non-stimulants, then stimulants)
- Knowing that more is not always better
- On prescribing: sometimes it’s because you see the light; at others times, because you feel the heat. It’s important to know which



University Health Services

Worst Practices in Pharmacological Treatment of Adult ADHD

- Not having clinic policies handling early refills, lost prescriptions, and other niceties of controlled substances
- Prescribing stimulants to see if someone “gets better” thereby proving your diagnostic shrewdness
- Considering empty pill containers, parents' notes or any other similar "evidence" of previous ADHD diagnosis sufficient enough to write a prescription for a controlled substance



University Health Services

Pharmacotherapy of Adult ADHD

- Stimulants
 - Methylphenidate
 - Amphetamine compounds
- Non-stimulants
 - Atomoxetine
- Antidepressants
 - Bupropion
 - Venlafaxine
 - Tricyclics
- Awakening Agents
 - Modafinil



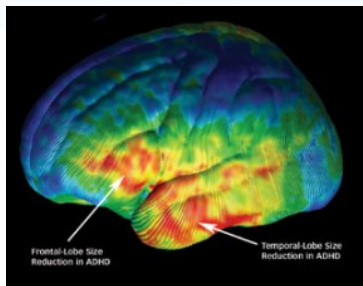
University Health Services

Mechanisms of Action of Stimulants

- Indirect agonist of DA and NE receptors
- Release monoamines at synapses in the brain and spinal cord
- Inhibit neuronal uptake of monoamine



University Health Services



University Health Services

Stimulants Found to Improve ADHD

Core Symptoms

- Inattention
- Impulsivity
- Hyperactivity

AND

- Compliance
- Impulsive aggression
- Social interactions
- Academic efficiency
- Academic accuracy

Spencer T et al. J Am Acad Child Adolesc Psychiatry. 1996;35:409-432; Dulcan M et al. for the Work Group on Quality Issues of the American Academy of Child and Adolescent Psychiatry. J Am Acad Child Adolesc Psychiatry. 1997;36:85S-121S; Greenhill LL et al. for the Work Group on Quality Issues of the American Academy of Child and Adolescent Psychiatry. J Am Acad Child Adolesc Psychiatry. 2002;41:26S-49S; Zametkin AJ, Ernst M. N Engl J Med. 1999;340:40-46.



University Health Services

Pharmacological Actions

- The primary effects of oral dose
 - Wakefulness, alertness, decrease fatigue; mood elevation, increased ability to concentrate; an increase in motor and speech activity
 - Diminish the awareness of fatigue; person may push exertion to the point of severe damage or even death.



University Health Services



Tommy Simpson (1937-1967)



University Health Services

Adverse Effects

- CNS:** Dizziness, tremor, irritability, insomnia, seizures (at higher doses), hyperthermia and coma
- CV:** Cardiac stimulation leads to palpitations, cardiac arrhythmias, anginal pain
- Other:** Weight loss, psychosis

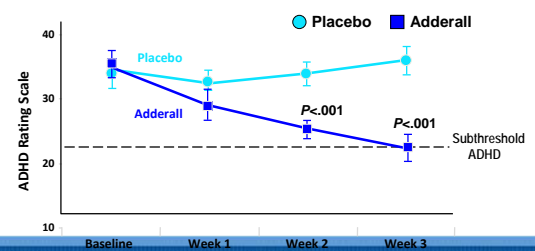


University Health Services

Study of Adderall® in Adult ADHD

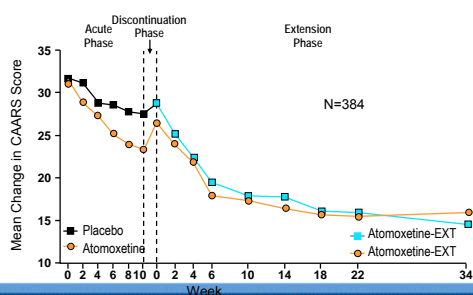
Spencer, et al. Arch Gen Psychiatry. 2001.

DSM-IV ADHD Symptom Checklist



University Health Services

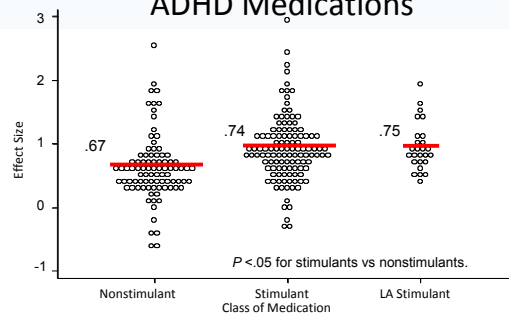
Atomoxetine HCl (Strattera®) Capsules: Long-term Efficacy in Adults



University Health Services

Adler L et al. J Clin Psychiatry. 2005;66:294-299.

Effect Size for Classes of ADHD Medications



University Health Services

Faraone SV. Medscape Psychiatry and Mental Health. 2003;8(2).

The Question of Stimulant Misuse and Abuse



University Health Services

Best Practices Regarding Stimulant Misuse and Abuse

- Recognize that **every indicator available** urges greater caution and more restrictive use of stimulants
 - Abuse liability studies
 - Actual abuse
 - Divergent prescribing practices



University Health Services

Worst Practices Regarding Stimulant Diversion and Misuse

- Thinking that immediate release stimulants are a standard first-line treatment
- If you aren't seeing stimulant misuse or abuse, you aren't looking close enough
- Thinking stimulant abuse is "no big deal"



University Health Services

Stimulant Abuse in Middle School

- In 2004 more 12th graders abused Ritalin than were prescribed Ritalin legitimately
- Annual prevalence of abuse in 2004
 - 8th grade=2.5%
 - 12th grade=5.1%



University Health Services

Stimulant Diversion

Disposition of Rx Stimulants Over 1 Year by Adolescents¹



- Among young adults with ADHD who misused stimulants, 10% got "high" on their medication²
- Most of those who misused medication had comorbid SUD (83%) or CD (83%)²

SUD = substance use disorder, CD = conduct disorder.

1. Poulin C. CMAJ. 2001;165:1039-1044. 2. Wilens TE et al. J Am Acad Child Adolesc Psychiatry. 2006;45:408-414.

Portrait of Young Adult Stimulant Abuser

- White male
- Attends college with stringent admission criteria
- Fraternity/sorority
- Lower GPA
- More likely uses alcohol, tobacco, marijuana, ecstasy, cocaine
- **Engages in other risky behaviors**
 - **24 times more likely smoke marijuana and 7 times more likely to binge drink.**

» Esteban-McCabe, Knight, et al. *Addiction*: January 2005



University Health Services

Summary

- ADHD is a neurobehavioral disorder with:
- ADHD
 - Persists through adolescence and adulthood in a high percentage of cases
 - Can have negative impact on multiple areas of functioning
- ADHD treatment
 - All available pharmacological therapies effective
 - Generally safe and well tolerated
 - High potential for diversion and misuse/abuse



Contact Information

Eric Heiligenstein, M.D.

elheilig@wisc.edu

608-262-9199

